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Thomas Kunz, Michiel F. H. Seuren
November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**
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**2**  **Research centers: Research activities in database management and information retrieval at University of Illinois at Chicago**                      ■
Isabel Cruz, Ashfaq Khokhar, Bing Liu, Prasad Sistla, Ouri Wolfson, Clement Yu
September 2002 **ACM SIGMOD Record**, Volume 31 Issue 3
Full text available: 📄 pdf(604.45 KB)     Additional Information: full citation, references

**3**  **Semantics modeling issues for processing natural language database queries**                      ■
D. G. Shin
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Harold Somers, Bill Black, Joakim Nivre, Torbjörn Lager, Annarosa Multari, Luca Gilardoni, Jeremy Ellman, Alex Rogers
March 1997 **Proceedings of the fifth conference on Applied natural language**

**processing**

Full text available: pdf(865.00 KB)    Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>
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A multilingual Internet-based employment advertisement system is described. Job ads are submitted as e-mail texts, analysed by an example-based pattern matcher and stored in language-independent schemas in an object-oriented database. Users can search the database in their own language and get customized summaries of the job ads. The query engine uses symbolic case-based reasoning techniques, while the generation module integrates canned text, templates, and grammar rules to produce texts and hy ...

5  The FINITE STRING Newsletter: Abstracts of current literature
Computational Linguistics Staff
January 1987 **Computational Linguistics**, Volume 13 Issue 1-2

Full text available: pdf(6.15 MB)    Additional Information: <u>full citation</u>
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6  Machine learning in automated text categorization
Fabrizio Sebastiani
March 2002 **ACM Computing Surveys (CSUR)**, Volume 34 Issue 1

Full text available: pdf(524.41 KB)    Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

The automated categorization (or classification) of texts into predefined categories has witnessed a booming interest in the last 10 years, due to the increased availability of documents in digital form and the ensuing need to organize them. In the research community the dominant approach to this problem is based on machine learning techniques: a general inductive process automatically builds a classifier by learning, from a set of preclassified documents, the characteristics of the categories. ...

**Keywords**: Machine learning, text categorization, text classification

7  XML access control: Access control of XML documents considering update operations
Chung-Hwan Lim, Seog Park, Sang H. Son
October 2003 **Proceedings of the 2003 ACM workshop on XML security**

Full text available: pdf(298.78 KB)    Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

As a large quantity of information is presented in XML format on the Web, there are increasing demands for XML security. Until now, research on XML security has been focused on the security of data communication using digital signatures or encryption technologies. As XML is also used for a data representation of data storage, XML security comes to involve not only communication security but also managerial security. Managerial security is guaranteed through access control, but existing XML acces ...

**Keywords**: XML document, XML update, access control

8  Application of intelligent agent technology for managerial data analysis and mining
Ranjit Bose, Vijayan Sugumaran
January 1999 **ACM SIGMIS Database**, Volume 30 Issue 1

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**Keywords**: agent-based design, data mining, data warehouse, decision support systems, intelligent agents, multidimensional analysis, prototype implementation, statistical analysis, visualization

**9** Research centers: Database research at UT Arlington
Sharma Chakravarthy, Alp Aslandogan, Ramez Elmasri, Leonidas Fegaras, JungHwan Oh
March 2003 **ACM SIGMOD Record**, Volume 32 Issue 1

Full text available: pdf(91.35 KB)     Additional Information: full citation

**10** Multiple underlying systems: translating user requests into programs to produce answers
Robert J. Bobrow, Philip Resnik, Ralph M. Weischedel
June 1990 **Proceedings of the 28th conference on Association for Computational Linguistics**
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**11** Securing information: Guarding the next Internet frontier: countering denial of information attacks
Mustaque Ahamad, Leo Mark, Wenke Lee, Edward Omicienski, Andre dos Santos, Ling Liu, Calton Pu
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**12** Poster papers: Discovery net: towards a grid of knowledge discovery
V. Ćurčin, M. Ghanem, Y. Guo, M. Köhler, A. Rowe, J. Syed, P. Wendel
July 2002 **Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery and data mining**

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### 13 Effective access to large audiovisual assets based on user preferences

S. Ioannou, G. Moschovitis, K. Ntalianis, K. Karpouzis, S. Kollias
November 2000 **Proceedings of the 2000 ACM workshops on Multimedia**

Full text available: pdf(1.01 MB)      Additional Information: full citation, abstract, references, index terms

Current multimedia databases contain a wealth of information in the form of audiovisual, as well as text data. Even though efficient search algorithms have been developed for either media, there still exists the need for abstract presentation and summarization of the results of database users' queries. Moreover, multimedia retrieval systems should be capable of providing the user with additional information related to the specific subject of the query, as well as suggest other topics which us ...

**Keywords**: multimedia databases, query expansion, text-based search, user profiling, web access

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**2   A knowledge-base environment for the development of software parts composition systems**   ◼
Bradley P. Allen, S. Daniel Lee
May 1989 **Proceedings of the 11th international conference on Software engineering**

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
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Barbara J. Grosz

February 1983 **Proceedings of the first conference on Applied natural language processing**

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**13** The OODB path-method generator (PMG) using access weights and precomputed access relevance

Ashish Mehta, James Geller, Yehoshua Perl, Erich Neuhold

February 1998 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 7 Issue 1

Full text available: pdf(265.48 KB)      Additional Information: full citation, abstract, index terms

A *path-method* is used as a mechanism in object-oriented databases (OODBs) to retrieve or to update information relevant to one class that is not stored with that class but with some other class. A path-method is a method which traverses from one class through a chain of connections between classes and accesses information at another class. However, it is a difficult task for a casual user or even an application programmer to write path-methods to facilitate queries. This is because it mig ...

**Keywords**: Access relevance, Access weight, OODB queries, Object-oriented databases, Path-method, Traversal algorithms

**14** Research centers: Database research at UT Arlington

Sharma Chakravarthy, Alp Aslandogan, Ramez Elmasri, Leonidas Fegaras, JungHwan Oh

March 2003 **ACM SIGMOD Record**, Volume 32 Issue 1

Full text available: pdf(91.35 KB)      Additional Information: full citation

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## 1 Obsolescence and self-assessment                                      ▬

Paul Armer
June 1972 **Proceedings of the tenth annual SIGCPR conference**

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> I want to talk to you about a problem which I believe deserves the attention of each of you as
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> at issue is an insidious one—many who have it are completely unaware of their illness. Many
> who have it refuse to admit, sometimes even to themselves, that it is serious enough to
> warrant attention. If unchecked, it can lead to other serious health problems, both physical
> and psychological.

## 2 Ubiquitous WWW: Implementing physical hyperlinks using ubiquitous identifier resolution   ▬

Tim Kindberg
May 2002 **Proceedings of the eleventh international conference on World Wide Web**

Full text available: ⬛ pdf(400.83 KB)     Additional Information: full citation, abstract, references, citings, index terms

> Identifier resolution is presented as a way to link the physical world with virtual Web
> resources. In this paradigm, designed to support nomadic users, the user employs a
> handheld, wirelessly connected, sensor-equipped device to read identifiers associated with
> physical entities. The identifiers are resolved into virtual resources or actions related to the
> physical entities - as though the user 'clicked on a physical hyperlink'. We have integrated
> identifier resolution with the Web so that it ca ...
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> **Keywords**: identifier resolution, mobile computing, nomadic computing, physical hyperlinks,
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1 **Proceedings of IEEE 9th International Conference on Data Engineer**

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[Abstract]    [PDF Full-Text (308 KB)]    **IEEE CNF**

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2 **Query pairs as hypertext links**
*Tanaka, K.; Nishikawa, N.; Hirayama, S.; Nanba, K.;*
Data Engineering, 1991. Proceedings. Seventh International Conference on , 8 April 1991
Pages:456 - 463

[Abstract]    [PDF Full-Text (552 KB)]    **IEEE CNF**

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3 **Classifying schematic and data heterogeneity in multidatabase syste**
*Kim, W.; Seo, J.;*
Computer , Volume: 24 , Issue: 12 , Dec. 1991
Pages:12 - 18

[Abstract]    [PDF Full-Text (620 KB)]    **IEEE JNL**

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4 **Mapping DTDs to object-oriented schemas**
*Yangjun Chen; McFadyen, R.; Fungyee Chan;*
Web Information Systems Engineering, 2001. Proceedings of the Second International Conference on , Volume: 1 , 3-6 Dec. 2001
Pages:161 - 170 vol.1

[Abstract]    [PDF Full-Text (906 KB)]    **IEEE CNF**

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5 **Object migration mechanisms to support updates in object-oriented**

**databases**
*El-Sharkawi, M.E.; Kambayashi, Y.;*
Databases, Parallel Architectures and Their Applications,. PARBASE-90,
International Conference on , 7-9 March 1990
Pages:378 - 387

[Abstract]    [PDF Full-Text (968 KB)]    **IEEE CNF**

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United States Patent [19]

Kavanagh et al.

[11] Patent Number: 5,835,910

[45] Date of Patent: Nov. 10, 1998

[54] METHOD AND SYSTEM FOR COMPARING ATTRIBUTES IN AN OBJECT-ORIENTED MANAGEMENT SYSTEM

[75] Inventors: Thomas S. Kavanagh; Christopher W. Beall, both of Boulder; William C. Heiny, Arvada; John D. Motycka, Evergreen; Samuel S. Pendleton, Louisville; Brooke E. Terpening, Golden; Kenneth A. Traut, Boulder, all of Colo.

[73] Assignee: Cadis, Inc., Boulder, Colo.

[21] Appl. No.: 526,555

[22] Filed: Sep. 12, 1995

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 339,481, Nov. 10, 1994.

[51] Int. Cl.$^6$ ..................................................... G06F 17/30
[52] U.S. Cl. ........................... 707/103; 707/104; 707/203; 364/468.04
[58] Field of Search ..................... 395/614, 615, 395/619; 364/424.034, 468.04; 707/103, 104, 203

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Primary Examiner—Wayne Amsbury
Assistant Examiner—Diane D. Mizrahi
Attorney, Agent, or Firm—Burns, Doane, Swecker & Mathis, L.L.P.

[57] ABSTRACT

The present invention is an improvement upon an object oriented database management system and provides a method and apparatus for a user to visually compare attribute values of instances retrieved in a search in a way that highlights attribute values that do not match or are not equal. The present invention provides a method and apparatus for determining which of the attributes are not equal or do not match, and which attribute values are the same for all of the instances that are retrieved by a search. A method and apparatus is provided for visually indicating such determinations in a way that is immediately understandable by a user.

27 Claims, 69 Drawing Sheets

# United States Patent [19]

## Mullins

[11] **Patent Number:** **5,857,197**

[45] **Date of Patent:** **Jan. 5, 1999**

[54] **SYSTEM AND METHOD FOR ACCESSING DATA STORES AS OBJECTS**

[75] Inventor: **Ward Mullins**, San Francisco, Calif.

[73] Assignee: **Thought Inc.**, San Francisco, Calif.

[21] Appl. No.: **822,254**

[22] Filed: **Mar. 20, 1997**

[51] **Int. Cl.$^6$** .................................................. **G06F 17/30**
[52] **U.S. Cl.** ........................................... **707/103**; 707/102
[58] **Field of Search** ..................... 707/103, 102

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*Primary Examiner*—Wayne Amsbury
*Attorney, Agent, or Firm*—Seidel, Gonda, Lavorgna & Monaco, PC

[57] **ABSTRACT**

A system and a method for accessing a data store as objects from an object application. The accessed data store could be either an object data store or a non-object (e.g. relational) data store. The system includes an object schema including meta data corresponding to a data store schema and an adapter abstraction layer. The adapter abstraction layer comprises a first adapter, and a second adapter. One embodiment of the system includes an object schema manager to create and maintain the object schema at run time. It comprises a dynamic, scalable, centrally managed, and secure method for accessing data stored in both object and non-object (e.g. relational) data stores, effecting a consistent interface to the data store regardless of its underlying structure, or a method of transport and level of security.

**8 Claims, 1 Drawing Sheet**
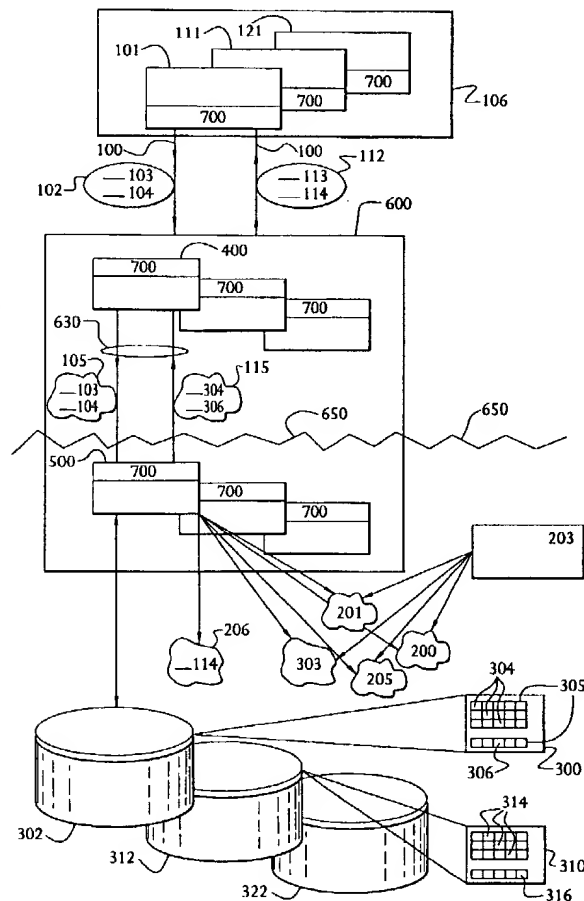
# United States Patent [19]

## Bentley et al.

[54] **OBJECT-ORIENTED COMPUTERIZED MODELING SYSTEM**

[75] Inventors: **Keith Bentley**, Glenmore, Pa.; **Samuel Wilson**, Wilmington, Del.; **Earlin Lutz**, West Chester, Pa.; **James Bartlett**, Elverson, Pa.; **John Gooding**, Spring City, Pa.

[73] Assignee: **Bentley Systems, Incorporated**, Exton, Pa.

[21] Appl. No.: **08/966,888**

[22] Filed: **Nov. 10, 1997**

### Related U.S. Application Data

[62] Division of application No. 08/612,622, Mar. 6, 1996, Pat. No. 5,815,415.

[60] Provisional application No. 60/010,234, Jan. 19, 1996, and provisional application No. 60/011,285, Feb. 7, 1996.

[51] **Int. Cl.⁷** .............................. G06G 7/48; G06F 17/50

[52] **U.S. Cl.** ...................... 703/6; 703/7; 703/1; 706/919; 345/964

[58] **Field of Search** ........................ 395/500.34, 500.27, 395/683, 500.28, 701, 500.01, 964; 707/103; 364/474.24; 706/919

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*Primary Examiner*—Kevin J. Teska
*Assistant Examiner*—Douglas W. Sergent
*Attorney, Agent, or Firm*—Akin, Gump, Strauss, Hauer & Feld, L.L.P.

[57] **ABSTRACT**

A computer system for modeling is disclosed, where the computer system has a storage device, first and second platforms, a portable persistent model, and first and second platform-dependent computerized modeling systems (CMS). Each platform is interfaced to the storage device and provides system-dependent services. The first platform has a first type of operating system and a first type of computer hardware including a first memory, and the second platform has a second type of operating system and a second type of computer hardware including a second memory. The model resides in the storage device in a platform-independent format and includes persistent component objects. The first CMS resides in the first platform memory and the second platform-dependent CMS resides in the second platform memory. Each CMS provides CMS services including retrieving the model from the storage device, manipulating the model, changing the model by adding and removing persistent objects, and persistently saving the model to the storage device. Each CMS includes a static kernel and a dynamic framework. The kernel executes on the platform and interfaces to the operating system and the computer hardware, and provides services necessary to load and execute CMS services and to interface to the platform services. The framework executes on the platform and interfaces to the kernel, provides a platform-independent visual interface between the CMS and a CMS user, and employs the services of the kernel.

**24 Claims, 17 Drawing Sheets**